WHAT IS CLAIMED IS:

1. A nonvolatile semiconductor memory device comprising: a memory array composed of a floating-gate field-effect transistor connected to a row line and a column line and disposed in a matrix configuration,

the floating-gate field-effect transistor including

a source and a drain formed inside a P-type well provided inside an N-type well on a semiconductor substrate,

a floating gate formed over between the source and the drain with an insulating film interposed therebetween, and

a control gate formed on the floating gate with a insulating film interposed therebetween;

first voltage application means for applying a first voltage to the P-type well when an erasing pulse is applied; and

second voltage application means for applying a second voltage to the N-type well when an erasing pulse is applied.

2. The nonvolatile semiconductor memory device as defined in Claim 1, wherein

the first voltage and the second voltage are positive voltages, and the second voltage is higher than the first voltage.

3. The nonvolatile semiconductor memory device as defined in Claim 1, wherein

the first voltage application means is a first high-voltage pumping circuit for generating the first voltage, and

the second voltage application means is a second high-voltage pumping circuit for generating the second voltage.

4. The nonvolatile semiconductor memory device as defined in Claim 1, wherein

the first voltage application means is a first high-voltage pumping circuit for generating the first voltage, and

the second voltage application means is an auxiliary pumping circuit for generating the second voltage higher than the first voltage by receiving the first voltage.

5. The nonvolatile semiconductor memory device as defined in Claim 1, wherein

the second voltage application means is a high-voltage pumping circuit for generating the second voltage higher than the first voltage, and

the first voltage application means is a regulator circuit for generating the first voltage lower than the second voltage by receiving the second voltage.